ABSTRACT

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A lithium ion capacitor including a positive electrode, a negative electrode, and an aprotic organic solvent solution of a lithium salt as an electrolytic solution. The positive electrode active material is capable of reversibly supporting lithium ions and/or anions, the negative electrode active material is capable of reversibly supporting lithium ions and anions, and the potentials of the positive electrode and the negative electrode are at most 2.0 V after the positive electrode and the negative electrode are short-circuited. The positive electrode and the negative electrode are alternately laminated with a separator interposed therebetween to constitute an electrode unit, the cell is constituted by at least two such electrode units, lithium metal is disposed between the electrode units, and lithium ions are preliminarily supported by the negative electrode and/or the positive electrode by electrochemical contact of the lithium metal with the negative electrode and/or the positive electrode.